



Can You Make Drinking Water from Air?

It's not called the staff of life for nothing! Water is the single most important resource that planet Earth has to offer, responsible for sustaining every type of lifeform upon it. But while most of our own drinking water is generally drawn from wells or springs, [abstracted from the ground](#) or purified in a treatment facility, a new technology has been developed which can pull it right out of thin air.

Thanks to the efforts of Abu Dhabi-based water generator manufacturers Eshara Water, the UAE will now be able to benefit from this ground-breaking game-changer. By accessing the humidity that is already present in ambient air and converting it into a liquid state, the ingenious contraption could go some way to solving the country's significant water scarcity problems.

An untapped resource

According to Eshara Water, there are approximately 37 billion litres of freshwater just sitting in our atmosphere in the form of humidity. Given that the entire population of the planet consumes an estimated 10 billion litres of water on a daily basis, there is more than enough ambient H₂O to meet all our needs across the globe.

Therefore, it makes sense to try and access this untapped resource. The technology to do so has already been pioneered in other countries, but Eshara Water have developed the first working prototype on Emirati soil. This means that the population of the UAE will be able to benefit from this revolutionary technology going forwards.

How it all works

The machine only needs to be plugged into an electrical supply in order to function. It begins by assessing the humidity and temperature levels of the air around it, then determining the swing in the thermometer that will be required to convert that ambient water into dew, before implementing the process.

First, the air is sucked into a filter to rid it of particulates, dust and other contaminants. Next, it's converted into water and passed through a mineralisation chamber to imbue it with the nutrients and taste that we are accustomed to. Finally, it is screened with UV light to guarantee its purity, before being chilled and dispensed, ready for consumption.



A product for all situations

Eshara Water are in the processing of developing three different models of their “Made in Abu Dhabi” machine. The first is capable of producing up to five litres of water and will be positioned in hotel rooms and private households. The second can generate as much as 30 litres of drinking water, while an industrial scale unit is in progress that has the capacity to manufacture up to 1,000 litres – essentially from thin air.

As well as being an excellent source of hydration, the machine is also extremely energy efficient. The 30-litre model consumes less electricity than a single air conditioning unit, while Eshara Water are investigating how to boost its environmental credentials even further by powering it from solar energy.